

Radarange Plus

microwave convection oven

Record in space below the Model No., Manufacturing (MFG.) No. and Serial No. recorded on the nameplate of your range. The nameplate is located either on the back of the oven or underneath the oven near the right front foot.

Model No. _____

Manufacturing No. _____

Serial No. _____

Date Installed _____

Selling Dealer _____

Retain these numbers and your sales receipt for proof of purchase should warranty questions arise in the future. Your sales receipt is required should warranty service be needed. Complete the registration card, which is included with the packet that comes with the oven. This must be filled out and returned to Amana Refrigeration, Inc., Amana, Iowa 52204. Federal regulations require that all manufacturers of microwave ovens have a permanent record of the owners of each oven.

Contents

Session 1 — Installation and Safety Instructions,	
Checking Oven Operation	2-7
Unpacking the Oven	3
Electrical Requirements	3
Safety Instructions	4
To Avoid Exposure to Microwave Energy	4
Operation of Light, Start, Stop, and Interlock Switch Systems	6
Session 2 — Learning the Controls	8-10
Food Placement	10
Session 3 — MICROWAVE Cooking	
Method	11-18
Cooking By Time at Full Power	11
Cooking By Time at Lower Power Levels	13
Changing Cookmatic Level While Cooking	13
Defrosting	13
Dehydration	14
Special Hints for Using Temperature Probe	15
Cooking to Temperature	17
Holding at Temperature	17
Session 4 — CONVECTION Cooking	
Method	19-20
CONVECTION Cooking Method	19
Session 5 — COMBINATION Cooking	
Method	21-24
Cooking by Time	21
Cooking to Temperature	22
Maintenance	25-29
To Clean Oven Interior	25
To Remove Oven Floor	26
To Clean Oven Exterior	26
Cleaning Agents to Avoid	26
To Change Oven Light	27
If Ceramic Oven Floor Should Break	27
Before Calling for Service	27
When Service is Required	29

Session 1

Installation and Safety Instructions Checking Oven Operation

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

WARNING — To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

1. Read all instructions before using the appliance.
2. Read and follow the specific "PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY" found on page 4.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" found on page 3.
4. Install or locate this appliance only in accordance with the provided installation instructions.
5. Some products such as whole eggs and sealed containers — for example, closed glass jars — may explode and should not be heated in this oven.
6. Use this appliance only for its intended use as described in this manual.
7. As with any appliance, close supervision is necessary when used by children.
8. Do not operate this appliance if it has a damaged cord or plug, if it

is not working properly, or if it has been damaged or dropped.

9. This appliance should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair or adjustment.
10. Do not cover or block any openings on the appliance.
11. Do not use outdoors.
12. Do not immerse cord or plug in water.
13. Keep cord away from heated surfaces.
14. Do not let cord hang over edge of table or counter.
15. See door cleaning instructions on page 25.
16. To reduce the risk of fire in the cavity:
 - a. Do not overcook food. Carefully attend appliance if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - b. Remove wire twist-ties from paper or plastic bags before placing bag in oven.
 - c. If materials inside the oven should ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.

SAVE THESE INSTRUCTIONS

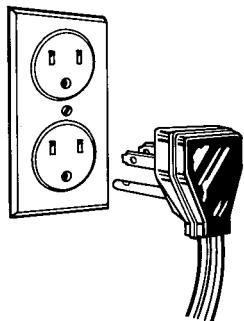
Inspect the oven for any damage such as damaged gasketing around the door, dents or holes in the screen of the door or dents inside the oven cavity.

Any dents or breakage should be reported to your Amana Dealer immediately. Your Amana Dealer will tell you if the unit will operate correctly.

OVEN PLACEMENT

Do not build the oven in with the sides, top or bottom air flow restricted. The oven must have sufficient air flow around it. If you wish to build in the Radarange Plus™ Oven, use only Amana model "MS" trim kits that have a label on the bottom that identifies which Amana Radarange Plus™ Oven model series may be used with this kit.

GROUNDING INSTRUCTIONS



INSURE PROPER GROUND EXISTS BEFORE USING.

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded. Do not use a two-prong adaptor.

WARNING — Improper use of the grounding plug can result in a risk of electric shock.

Consult a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept the plug on the appliance. The extension cord must be rated at a minimum of 15 amps, 120 volts, and should be no more than six feet in length. This oven should be plugged into a separate circuit. When a microwave oven is on a circuit with other appliances, cooking times can be increased and fuses can be blown.

Model RMC-20C: This oven must be plugged directly into a separate 120 volt, 15 amp, 60 cycle circuit all its own. No other appliances or lights must be on the circuit. If a microwave oven is on a circuit with other appliances, cooking times can be increased and fuses can be blown.

Model RMC-20CET: Ovens that have the letters "ET" as part of the model number are factory set to operate on the 120 volt, 50 HZ current used outside the United States. Owners of the "ET" type model **must** have an authorized Amana servicer convert the oven before operating it on the 120 volt, 60 HZ current that is standard in the United States and some other countries. The oven should be plugged into a 15 amp circuit that does not have any other appliances or lights on it. If a microwave oven is on a circuit with other appliances or on an improper circuit, cooking times can be increased and fuses can be blown.

The wall receptacle you intend to use must receive its power from an electrical circuit with the correct power rating. It is the personal responsibility and obligation of the customer to have a qualified electrician make sure that the electrical circuit matches the power rating stamped on the oven serial plate.

Safety Instructions

Read and follow these Rules for Safe Operation

The Amana Radarange Oven is designed to be **safe** and **reliable**. As with all appliances, there are certain rules to follow. Make sure everyone who cooks is familiar with this product's operation and with these precautions.

1.

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- (b) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the: (a) door (bent), (b) hinges and latches (broken or loosened), (c) door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

2. Precautions

5

- (a) **WARNING:** Liquids must be briskly stirred or poured (to mix in air) before being heated in a microwave oven. If air is not mixed into a liquid, the liquid can erupt in the oven or after removal from the oven.
- (b) **Eggs** must not be cooked or reheated in the shell, or with an unbroken yolk. To do so may result in a pressure build-up and eruption. Pierce the yolk with a fork or knife before cooking.
Do not reheat previously cooked eggs in the microwave oven unless finely chopped or scrambled.
- (c) **Home canning** must not be done in a microwave oven. Home canning is generally done with metal lids. Since metal lids reflect microwaves, you cannot be assured that the food product will be heated uniformly to 212°F or above, and there is a probability of deterioration of the food product. USDA extension specialists do not recommend home canning in microwave ovens.
- (d) **Deep fat frying** must not be done in any microwave oven. The fat could overheat and be hazardous to handle.
- (e) **WARNING: Do not heat sealed containers in any microwave oven. Containers with restricted openings** such as syrup bottles must not be used for cooking. Food or liquid could expand quickly and cause the container to break.
- (f) **Regular cooking thermometers** must not be used when cooking by the MICROWAVE or COMBINATION Cooking Methods. Most cooking thermometers contain mercury and may cause "arcing", malfunction, and/or damage to the oven. Do not use plastic-faced microwave thermometers when cooking by the COMBINATION or CONVECTION Cooking Methods.
- (g) **Air-tight containers** must always be pierced or opened before heating in a microwave convection oven to allow steam to escape.
- (h) **Metal or ceramic accessories** which have a special design to absorb microwave energy to provide heat ("active" accessories such as browning skillets) may be used with caution. Be sure to test any such device before use and to read carefully and follow manufacturer's instructions provided with the accessory. Any questions concerning these accessory products should be referred to the accessory manufacturer. Amana Refrigeration, Inc., does not endorse any brand of accessory. Remember that all microwave accessories are not "top quality"; some may **not** be suitable for microwave cooking. Caution must be used when purchasing microwave accessories.
- (i) **Newspapers** must never be used in a microwave oven since they may ignite.

- (j) **Paper towels** which contain nylon or other synthetic fibers woven through them must not be used because the heated synthetics could melt and cause the paper to ignite.
- (k) **Do not touch door and chrome** around door or interior of the oven until it has cooled. Remember that this product is a cooking device and will get hot.
- (l) **Only oven proof cookware** should be used when cooking by the CONVECTION or COMBINATION Cooking Methods. Items which must not be used include paper towels, plastic wrap and plastic cookware which cannot withstand conventional oven heat; these non-oven-proof items could melt, crack or ignite due to the oven heat.
- (m) **Dry potholders** must always be used when cooking by the COMBINATION or CONVECTION Cooking Methods, and, as necessary, when cooking by the MICROWAVE Cooking Method. The utensil, food, and certain areas inside the oven may be hot.
- (n) **Damp potholders or dishtowels** must never be used when touching hot utensils or oven racks, as steam burns may result.
- (o) **Flammable materials** must not be stored in or around the oven, as this may create a fire hazard.
- (p) **The oven rack** should be placed in the desired position when the oven is cool. If you must move the rack while the oven is hot, do not let the potholder touch the heating element.
- (q) **Be sure to check the spillover well** in the bottom of the oven if a food is spilled or boils over. Allow the food to cool, then empty the spillover well.

Checking Oven Operation

Check to be sure the light works.

Locate the **LIGHT** switch on your oven. This switch turns the interior light on and off when the oven door is closed. The interior light will always be on when the oven door is open. Close the door. Push the switch to turn the light on. Push again to turn it off.

Understand the Operation of the START, STOP, and Interlock Switch Systems

The **START** and **STOP** switches turn the oven on and off. Microwave energy is generated only when the door is closed, cooking time has been set, the **MICROWAVE** or

COMBINATION Cooking Method switch has been pushed, and the **START** switch has been pushed.

In addition, the oven has interlock switches to assure no microwave energy is generated when the door is open.

To check or remove food from the oven before the cooking time has elapsed, you may either push the **STOP** switch or simply open the oven door to turn the oven off. To open the oven door, push the door handle to the right and pull open. When the oven door is opened, hidden interlock switches sense the motion of the door and automatically turn the oven off.

Here is how you may check the operation of the **START** and **STOP** switches:

1. Remove the metal oven rack.
2. Put a glass of water in the oven.
3. Set the **TIMER DIAL** for 1 minute. To set **TIMER DIAL**, first turn clockwise past the desired time and then set the dial at the correct time.
4. Locate and push the **MICROWAVE** switch.
5. Turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to Full Power.
6. Locate these switches on the oven:

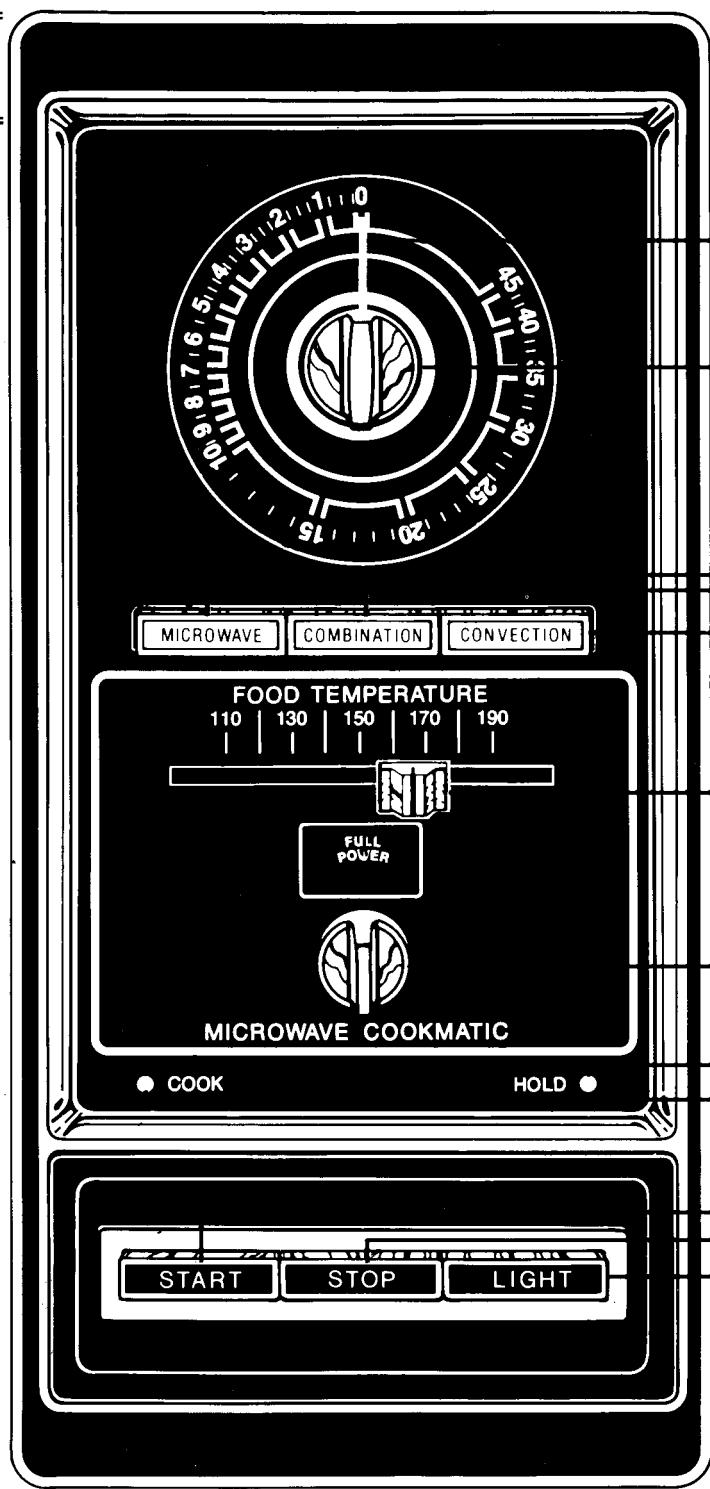
START STOP LIGHT

7. Push the **START** switch. The oven should be operating.
8. Push the **STOP** switch. The oven should now shut off and the sound of the motor should cease.
9. Push the **START** switch. The oven should now be operating.
10. Open the door and remove the glass of water. The oven light should come on and the oven and **TIMER DIAL** should stop.
11. Turn the **TIMER DIAL** counterclockwise until "O" is lined up with the red timer setting mark above it.

If under any of the preceding conditions the oven does not operate as stated, do not use it. Call your Amana Dealer or authorized service agency. (See page 29.)

Your Radarange Plus Microwave Convection Oven is now ready to use and you're familiar with the basic precautions for its safe use. In Session 2 you'll learn the basic functions of the oven controls and you'll read the introductory chapter of the Amana cookbook.

Session 2



RMC-20C

Learning the Controls

9

The control panel on your Radarange Plus Microwave Convection Oven looks like the picture at left. Briefly familiarize yourself with the controls and the food placement positions on the next page.

TIMER SETTING MARK — For measurement of time.

TIMER DIAL — Used only when cooking by time (not by temperature probe). Turn clockwise to select the amount of cooking time. A bell will sound when cooking time has elapsed. Models with the "ET" designation have two scales on the Timer Dial. The outer scale is for use on 50 HZ operation. The inner scale is for use on 60 HZ operation.

MICROWAVE COOKING METHOD SWITCH
— Push when cooking food by MICROWAVE Cooking Method.

COMBINATION COOKING METHOD SWITCH — Push when cooking food by COMBINATION (microwave and convection) — Cooking Method.

CONVECTION COOKING METHOD SWITCH
— Push when cooking food by CONVECTION Cooking Method.

FOOD TEMPERATURE SELECTOR — Slide to select the end temperature of food when cooking using the temperature probe.

MICROWAVE COOKMATIC POWER LEVEL CONTROL — Use to select power setting desired. Used when cooking by time and when cooking to temperature by either the MICROWAVE or COMBINATION Cooking Methods.

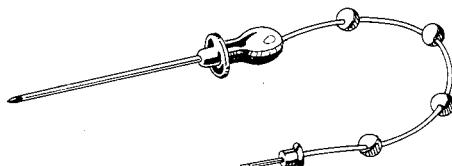
HOLD LIGHT — Glows red when set food temperature is reached and oven is holding at temperature.

COOK LIGHT — Glows red when oven is cooking by time or to temperature; flashes on and off when cooking on a lower Cookmatic power level.

START SWITCH — Push to start cooking. You should select cooking method before pushing **START** switch.

STOP SWITCH — Push to stop cooking. You may also open the door to turn the oven off.

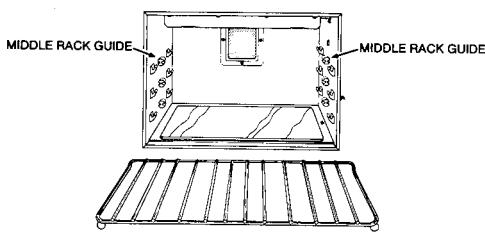
LIGHT SWITCH — Push to turn oven light on and off when the oven door is closed.



Temperature probe — Use when cooking foods to a selected internal temperature and to hold foods at a specific temperature. Can be used when cooking by the MICROWAVE or COMBINATION Cooking Methods. The temperature probe is **not** designed to be used when cooking by the CONVECTION Cooking Method.

Food Placement

Correct food placement in your oven is important for best results. Some foods are cooked on the oven floor, while others are cooked at various rack positions.



Your oven has a specially designed metal rack which allows microwave energy to penetrate the food uniformly.

The oven rack is specially designed to be used with microwave energy. Never substitute an ordinary metal rack, as it will provide less satisfactory cooking results and could result in arcing.

Install the rack by tilting the front up and sliding the back into the slot in the middle rack support guide until it stops. Then lower the front onto the front rack support guide and slide back until the balls on front of the rack touch the front of the rack support guide. Oven rack should never be placed on top of the ceramic tray or spillover well at the bottom of the oven.

Packaged with your oven is a specially designed mesh rack. This rack is for use when dehydrating foods. Place the mesh dehydration rack on top of the metal oven rack when dehydrating foods.

Your oven also has a larger ceramic tray at the bottom of the oven. This ceramic tray is the oven floor and must be in place while the oven is operating. It must only be removed during cleaning.

Your Amana cookbook specifies the proper food placement for every recipe.

Introduction to Microwave — Convection Cooking

Read the introductory chapter of your Amana cookbook. In reading this chapter you'll learn:

- How to use the cookbook.
- The meanings of MICROWAVE, CONVECTION, and COMBINATION Cooking Methods.
- Types of accessories and utensils recommended for use in your microwave convection oven.
- Many microwave, convection, and combination cooking techniques.
- How to adapt your favorite recipes for the microwave convection oven.

Now that you are familiar with your oven and cookbook, you are ready to begin cooking. In Session 3 you will learn how to cook by the MICROWAVE Cooking Method.

Session 3

MICROWAVE Cooking Method

The fastest way to cook in your Radarange Plus Microwave Convection Oven is by the MICROWAVE Cooking Method (microwave only). Microwave energy is generated, but no convection heating occurs.

When a food is to be cooked by microwave only, your Amana cookbook will read:

Cooking Method: MICROWAVE

There are two ways of cooking by microwave only in your Radarange Plus Oven:

- 1) By time or
- 2) to temperature

TRY IT! MICROWAVE Cooking Method Cooking by Time at Full Power

Cooking by time means you set the oven to cook for the length of time specified in the recipe. Cooking with Full Power is the fastest and easiest way to cook by microwave. When at Full Power, your oven will provide approximately 700 watts* of cooking power. It is **very fast**.

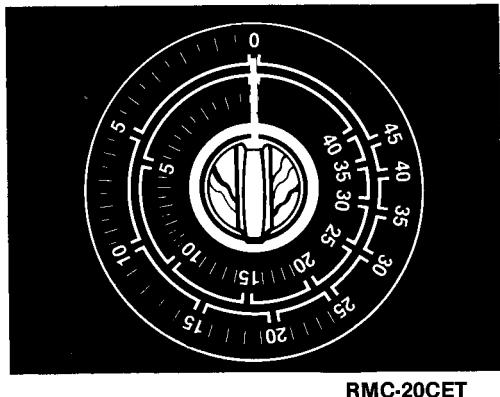
- A. **Be sure the temperature probe is not in the oven.** The probe cannot be in the oven when cooking by time.
- B. **Remove the metal rack from the oven.** Foods are usually cooked on the oven floor when using the MICROWAVE Cooking Method. Refer to your Amana cookbook for specific instructions for various foods.
- C. **Place a casserole full of water on the oven floor and close the oven door.** This is to absorb the microwaves as you experiment with the controls. When there is no food, water or other "load" to absorb the microwave energy, it could damage parts of the microwave convection oven.
- D. **Look at the Timer Dial.**

Model RMC-20C. The Timer Dial on this unit has a single scale, numbered from "1" to "45." These numbers represent minutes of cooking time. Notice there are 3 small marks between each of the numbers from "1" to "5." Each mark represents 15 seconds.

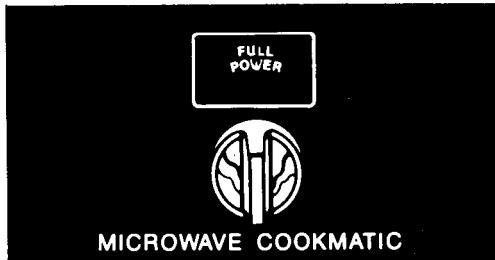
There is one small mark between each of the numbers from "5" to "10." Each mark represents 30 seconds.

The marks between the "10" and "45" each represent one minute.

*Per one liter test



MICROWAVE



START

Model RMC-20CET. The Timer Dial on this unit has a double scale. The outer scale is for use on 50 HZ operation and is numbered from "0" to "45." The inner scale is for use on 60 HZ and is numbered up to 40 minutes. The long marks from OFF to "10" each represent one minute. The short marks in between each represent 30 seconds. Each mark between "10" and "25" ("10" and "20" on the 60 HZ scale) represents one minute. The scale is marked in 5 minute intervals for longer times.

- E. **Set the timer for 10 minutes** by turning the **TIMER DIAL** clockwise past "10," then counterclockwise until the red timer setting mark is directly in front of the "10."
- F. **Push the MICROWAVE Cooking Method switch.** The switch will be indented when properly engaged.
- G. **Locate the MICROWAVE COOKMATIC POWER LEVEL CONTROL.** Turn the control to the "FULL POWER" setting.
- H. **Push the START switch.** The oven is now cooking by microwave only, at Full Power. Notice the cook light is on, indicating you are cooking by microwave only. Watch the **TIMER DIAL** move counterclockwise as the time expires. You can estimate the amount of cooking time remaining by looking at the setting directly behind the timer mark.
- I. Occasionally you may make a mistake when setting a cooking time. Or you may decide to change the time setting after you've started cooking. If so, it's easy to change the time setting on your oven to increase or decrease cooking time. For example, if you decide you only want to cook 5 minutes more, **turn the TIMER DIAL counterclockwise to the 5 minute setting.**
- J. You may also want to stop the oven at some time to check the food, to stir, etc. If so, **just open the oven door.** The oven will turn off immediately. **Close the oven door and push the START switch.** The oven will start cooking again from the point where it stopped when you opened the oven door.
- K. **Push the STOP switch.** You may also stop the oven by opening the oven door. Remove the casserole of water from the oven and move the **TIMER DIAL** back to "0."

SUMMARY — MICROWAVE Cooking Method: Cooking by Time at Full Power

1. Turn the **TIMER DIAL** clockwise to the desired time setting.
2. Push the **MICROWAVE** Cooking Method switch.
3. Turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** counterclockwise to "FULL POWER".
4. Push the **START** switch.

TRY IT! MICROWAVE Cooking Method: Cooking by Time at Lower Cookmatic Power Levels/ Changing Microwave Cookmatic Power Level While Cooking/Defrosting



Just as some foods cook better at lower oven temperatures, some foods cook better at lower, rather than higher, Microwave Cookmatic Power Levels. Your Amana Radarange Plus Microwave Convection Oven has ten Cookmatic Power Level settings: "1" through "9" and Full Power. These power levels are attained by cycling the microwave power on and off at various time intervals. Each Cookmatic Power Level is suited for cooking different types of foods.

Defrosting is usually done at Cookmatic Level "3." Refer to your Amana cookbook for more defrosting information.

Recipes in the Amana cookbook specify the Microwave Cookmatic Power Level to be used for cooking. For example, your Amana cookbook might specify:

Cookmatic Level: 8

Try cooking by time at a lower Microwave Cookmatic Power Level:

- A. Place a cup of hot tap water on the oven floor.
- B. Set the timer for 4 minutes.
- C. Push the **MICROWAVE** Cooking Method switch.
- D. Turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to "8."
- E. Push the **LIGHT** switch.
- F. Push the **START** switch. The oven is now cooking by microwave only at Cookmatic Power Level 8. The water will start to boil within the 4 minutes. When it does, turn the **MICROWAVE COOKMATIC POWER LEVEL CON-**



TROL clockwise to "3." Watch the water — it will stop boiling, but will stay hot. Notice that the red **COOK** light turns on and off, indicating that the magnetron is cycling on and off to produce the lower cooking power level.

G. Turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to various positions. Notice power can be set anywhere, even during cooking.

SUMMARY — **MICROWAVE** Cooking Method: Cooking by Time at Lower Cookmatic Power Levels/ Changing Microwave Cookmatic Power Level While Cooking/Defrosting

1. Turn **TIMER DIAL** to desired time setting.
2. Push **MICROWAVE** Cooking Method switch.
3. Turn **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to desired power setting.
4. Push **START** switch.
5. To change the power setting, turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to the new setting.

Dehydration Rack

When using the **MICROWAVE** Cooking Method for dehydration, use the dehydration rack specially designed for your oven. Place the mesh dehydration rack on top of the metal oven rack when dehydrating foods. See your "Dehydration Use and Care Manual" for specific instructions.



Dehydration Rack

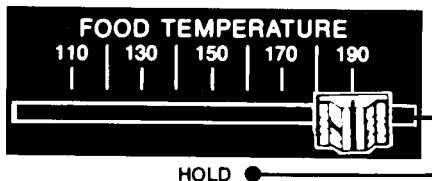
MICROWAVE Cooking Method: Cooking By Time

You have now learned how to use your Amana Radarange Plus Microwave Convection Oven for microwave cooking and defrosting. You may wish to practice what you've learned this far before going on to learn how to cook to temperature by the **MICROWAVE** Cooking Method.

MICROWAVE Cooking Method: Cooking to Temperature/Holding at Temperature

Your Amana Radarange Plus Microwave Convection Oven has a temperature probe which allows you to cook food to the precise temperature desired. You'll find this feature particularly helpful for cooking meats to the exact degree you like. You can also use it to reheat leftovers, to warm soups and beverages, and for many other cooking tasks. The temperature system is not intended for use as a candy thermometer. The highest temperature sensed by the system is 190°F, while most candies require temperatures of 230°F or higher.

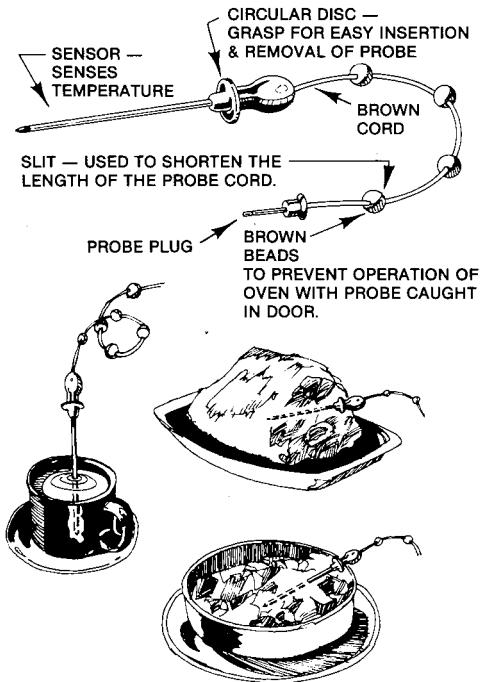
To cook to temperature you'll use sections of the control panel you haven't used yet. Locate these controls on your oven:



FOOD TEMPERATURE SELECTOR — Used to select desired food temperature when cooking to temperature.

FOOD TEMPERATURE HOLD LIGHT — Glows red when oven is holding food at a pre-set temperature.

The temperature probe is pictured to the left, below.



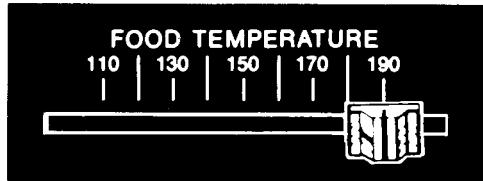
Special Hints for Using the Temperature Probe

1. Insert probe as instructed in recipe or as shown at left.
 - a. Meats
 - With the sensor tip in the thickest section, halfway between the center and outside edge of the meat, away from fat and bone. Be sure the probe is inserted into the largest **lean** area of the meat.
 - b. Casseroles, Leftovers
 - With tip in center of casserole or dish, not touching bottom or sides.
 - c. Beverages
 - With tip in center of liquid.
2. Be sure probe is **securely** inserted into food. If probe should accidentally fall out of food it will sense air temperature and the food will not cook properly. The probe could become damaged. If the probe tends to slip out of the food, loop the cord (as shown in the beverage drawing at left). The cord can be secured in the slit in the bead closest to the probe plug. Simply loop the cord, then press a section of the cord into the slit in the bead.

3. If necessary, use a hot pad to remove hot temperature probe. During cooking the probe could become hot enough to burn you.
4. Wash the probe with hot, soapy water. Do not immerse the probe plug in water or wash in an automatic dishwasher. Rinse and dry probe thoroughly.
5. **Always remove the temperature probe after use.** Store the temperature probe somewhere other than inside the Radarange Oven, in a place where it won't be lost or damaged.
6. Do not attempt to force the temperature probe into solidly frozen food. The temperature sensor tip could be damaged or the probe could break.
7. Do not use the temperature probe in conjunction with foil or other metal. Arcing could result. **If a recipe suggests the use of foil, do not use the temperature probe for cooking.**
8. Do not attempt to operate the oven if the temperature probe should accidentally get caught in the oven door.
9. Do not use the Automatic Temperature Control System when cooking different dishes or foods in the Radarange Plus Oven at the same time. Because different foods cook at different rates, the results may be unsatisfactory.
10. **The temperature probe** must not come in contact with the heating element at the top of the oven. If it does, the probe could become damaged.
11. **Do not use the temperature probe** when cooking by the CONVECTION Method.

TRY IT! MICROWAVE Cooking Method: Cooking to Temperature/Holding at Temperature

Try using the temperature probe to heat water to 190°F to make instant coffee.



- A. Remove oven rack. Place a cup of fresh cold water on the oven floor.
- B. Insert probe plug securely into the probe plug receptacle on the right side of the oven wall.
- C. Place the tip of the probe in the center of the cup.
- D. Close oven door.
- E. Push the MICROWAVE Cooking Method switch.
- F. Slide the TEMPERATURE SELECTOR to the 190°F setting (the white mark beside "190").

Note: Do not attempt to set the TEMPERATURE SELECTOR for a temperature setting above 190°F. The Temperature Control feature is designed to heat foods to temperatures of 110 to 190°F. Setting the control above 190°F could cause liquids to boil dry and oven parts to become damaged.



- G. Turn the MICROWAVE COOKMATIC POWER LEVEL CONTROL to FULL POWER.
- H. Push the START switch. Notice that the COOK light is on. This indicates you are cooking at FULL power by microwave only. The oven ignores any time setting when the temperature probe is in place.
- I. When the water temperature reaches 190°F, look at the HOLD light. It will glow red, indicating the oven is now holding the water at the selected temperature. The probe holds the water at the temperature you selected by cycling the microwave power on and off until you shut the oven off. The COOK light will turn on and off as the magnetron cycles on and off to maintain the set temperature. This temperature holding capability allows you to prepare evenly cooked, tender meats. You can also maintain a precise simmer of sauces, stews, and soups for as long as you wish. And, you can hold a casserole, fondue, meat or almost any other food at serving temperature for late arrivals. The hold light will remain lit until the temperature probe is unplugged.

Note: Most foods — and especially cooked meat, fish or poultry — should be held at 140°F or above to prevent the growth of bacteria or production of toxins.

Also note: Occasionally you may want to change the desired end temperature while you're cooking. This can be done while cooking to temperature or while holding at temperature. Just slide the **TEMPERATURE SELECTOR** until the red line on the control is at the desired end temperature setting.

- J. **Open the oven door or push the STOP switch**, whenever you want to stop holding at temperature.
- K. **Remove cup from oven and add instant coffee to water.**

SUMMARY — MICROWAVE Cooking Method: Cooking to Temperature/Holding at Temperature

1. Insert probe into food and probe plug into oven wall receptacle.
2. Push the **MICROWAVE** Cooking Method switch.
3. Slide **FOOD TEMPERATURE SELECTOR** until the red line on the control is at the desired end temperature.
4. Turn **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to the desired setting.
5. Push the **START** switch.
6. Open the oven door or push the **STOP** switch to turn the oven off.

MICROWAVE Cooking Method: Cooking by Time/Cooking to Temperature

In this session you have learned how to use your Amana oven for cooking by microwave only. You have also learned how to microwave cook by time or to temperature, using various Microwave Cookmatic Power Levels.

We suggest you practice before going on to Session 4. In Session 4 you will learn how to use the CONVECTION Cooking Method.

CONVECTION Cooking Method

You are now familiar with the speed and convenience of microwave cooking. But your oven also provides the benefit of convection cooking.

Convection cooking cooks foods by circulating hot air. A fan circulates hot air throughout the oven cavity to brown and crisp foods better and faster than if the hot air is not moving.

When a food is to be cooked by convection only, your Amana cookbook will specify:

Cooking Method: CONVECTION

TRY IT! CONVECTION Cooking Method

When cooking by the CONVECTION Cooking Method, you always cook by time, setting the **TIMER DIAL** for a specific cooking time. The temperature probe must not be used when cooking by convection only.

Preheating the oven is only necessary when the recipe calls for it. Your Amana cookbook provides guidelines on the proper food placement in the oven and cooking time for various foods.

For example, let's try a CONVECTION Cooking Method recipe.

- A. **Locate frozen Tater Tots on the Frozen Convenience Food Chart of your Amana cookbook.**
- B. **Arrange Tater Tots on a metal baking sheet.** (If you would rather not make the Tater Tots, simply follow steps C through I below, substituting an ovenproof casserole of water for the Tater Tots.)
- C. The cooking instructions look like this:

Food Placement: Rack in Upper
Guide

Cooking Time: 15 to 18 minutes, or
until golden brown

Cooking Method: CONVECTION

CONVECTION

- D. As the chart instructs, place the oven rack in the upper guide.
- E. Place the Tater Tots (or water) on the metal oven rack and close the oven door.
- F. Set the **TIMER DIAL** for 15 minutes.
- G. Push the **CONVECTION** Cooking Method switch.
- H. Push the **START** switch. The oven is now cooking by convection only. Watch the **TIMER DIAL** move as time expires.

NOTE: When using the CONVECTION Cooking Method, you will never use the **FOOD TEMPERATURE SELECTOR**. Also, because the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** does not control convection cooking, it can be set in any position.

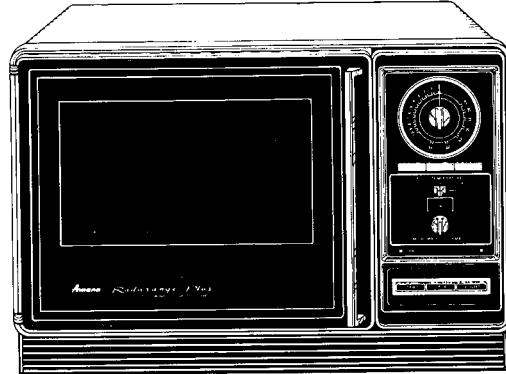
- I. When the oven bell signals the 15 minutes are up, remove the Tater Tots, using potholders.

SUMMARY — CONVECTION Cooking Method

1. Select proper food placement.
2. Turn **TIMER DIAL** clockwise to desired time setting.
3. Push **CONVECTION** Cooking Method switch.
4. Push **START** switch.

CONVECTION Cooking Method

In this session you have learned how to cook by convection in your Amana Microwave Convection Oven. We suggest you try a few recipes in your Amana cookbook which are cooked by the CONVECTION Cooking Method. Then proceed to Session 5 to learn how to use the COMBINATION Cooking Method.



Session 5

COMBINATION Cooking Method

The COMBINATION Cooking Method provides the best of two excellent cooking methods: microwave and convection. Foods which rise or expand reach greater volume. Meats and poultry stay moist and juicy while foods are delicately browned and crisped, as desired. There is usually substantial time savings over the conventional cooking methods.

When cooking by COMBINATION, microwave power and the convection heating element alternate on and off, while the convection fan circulates hot air. The microwave power and convection heating element alternate on and off so the food is, in effect, cooked by microwave energy and convected hot air at the same time.

When a food is to be cooked by combination, your Amana cookbook will read:

Cooking Method: COMBINATION

There are two ways of cooking by combination in your Amana oven:

- 1) By time, or
- 2) to temperature

TRY IT! COMBINATION Cooking Method: Cooking by Time

Let's look at a COMBINATION cooking method recipe in your Amana cookbook and step through the instructions, using a water "load" instead of actual food.

- A. Locate the recipe for Tuna Tetrazzini in your Amana cookbook.
- B. The recipe cooking instructions look like this (Step 3):
Food Placement: Rack in Middle Guide
Cooking time: 14 to 17 minutes, or until temperature of 150°F is reached.
Cooking Method: COMBINATION
Cookmatic Level: 3
- C. As the recipe instructs, place the metal oven rack in the middle guide.

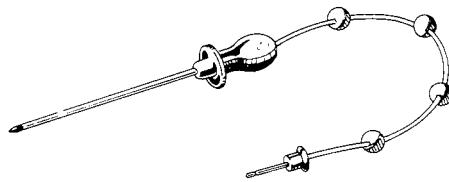
COMBINATION

- D. Fill an ovenproof glass casserole or loaf pan with water and place it on the oven rack.
- E. Set the **TIMER DIAL** for 14 minutes.
- F. Push the **COMBINATION** Cooking Method switch.
- G. Turn the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to "3." (Remember from Session 3 that this controls microwave power.)
- H. Push the **START** switch. Notice the **COOK** light turns on and off, indicating that the magnetron is cycling on and off. You can also see what Cookmatic Power Level has been set. Notice that the **TIMER DIAL** is rotating.
- I. Open the door, remove the dish (using potholders) and turn the **TIMER DIAL** to "0."

SUMMARY — COMBINATION Cooking Method: Cooking by Time

1. Select proper food placement.
2. Turn **TIMER DIAL** clockwise to desired time setting.
3. Push **COMBINATION** Cooking Method switch.
4. Turn **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to desired power setting.
5. Push **START** switch.

TRY IT! COMBINATION Cooking Method: Cooking to Temperature



In Session 3 you learned how to use the temperature probe when cooking by microwave. You may also use the temperature probe when cooking by combination to cook food to temperature or to hold food at a desired temperature. (Usually you will not "hold at temperature" when cooking by combination: food will be removed as soon as the desired temperature is reached, as indicated by the Temperature Hold Light. Because the heating element will remain hot for a while, the food may cook beyond the desired temperature if not removed when the set temperature is reached.)

You may wish to review the "Special Hints for Using the Temperature Probe" on page 15 before proceeding.

- A. Look at the previous example where you cooked "Tuna Tetrazzini" (water load) using the COMBINATION Cooking Method, cooking by time (page 21). Instead, you could cook it to temperature using the temperature probe as the recipe indicates.

- B. Place the metal oven rack in the middle guide, as the Tuna Tetrazzini recipe indicates.
- C. Place casserole or loaf pan filled with water on the oven rack.
- D. Insert probe plug securely into the probe receptacle on the right side of the oven wall.
- E. Place tip of probe in center of water and close oven door.
- F. Push the COMBINATION Cooking Method switch.
- G. Slide the TEMPERATURE SELECTOR until the red line on the control is at the 150°F mark.
- H. Turn the MICROWAVE COOKMATIC POWER LEVEL CONTROL to "3."
- I. Push the START switch. The oven is now cooking by combination, to a desired food temperature. Notice you did not set any time on the TIMER DIAL.
- J. Watch for the HOLD Light to come on, indicating that the water has reached the desired temperature. Using a potholder, open the door and remove the water.

Note: Holding at Temperature is not recommended when cooking by COMBINATION Cooking Method. Because the heated convection element will continue to cook food after the desired temperature is reached, you may want to set the TIMER DIAL for the approximate cooking time so the signal bell will ring at about the time the food reaches the desired temperature.

When food has reached the desired temperature, open door and remove food, using a potholder.

SUMMARY — COMBINATION Cooking Method: Cooking to Temperature

1. Select proper food placement.
2. Insert probe into food and probe plug into oven wall receptacle.
3. Push **COMBINATION** Cooking Method switch.
4. Slide **FOOD TEMPERATURE SELECTOR** until the red line on the control is at the desired end food temperature.
5. Turn **MICROWAVE COOKMATIC POWER LEVEL CONTROL** to desired power setting.
6. When the Temperature Hold light goes on, open the oven door or push **STOP** to turn oven off, and remove food.

COMBINATION Cooking Method: Cooking by Time/Cooking to Temperature

In this Session you have tried an example using the COMBINATION Cooking Method. You have learned that you can cook by time or to a desired food temperature when combination cooking.

Maintenance

To Clean Oven and Door Interior:

If the metal oven rack, oven door, oven floor or oven walls become splattered, simply wipe with a paper towel or clean with a mild detergent in warm water using a soft sponge or cloth. If desired, a cup of water may be boiled in the oven to loosen soil before cleaning.

For more difficult soil, you may use any of the following non-abrasive cleansers on the metal oven rack, oven door, oven floor or oven walls:

- Dishwashing liquid.
- Baking soda as a cleaning powder.
- A fine-polishing cleansing powder, such as Amana Stain Remover.
- Non-impregnated plastic and nylon pads, or plastic mesh balls.
- Non-abrasive cleaners, such as Amana Cleaner-Conditioner, for ceramic rack and floor inserts.
- Other cleaning products recommended for use on stainless steel.

Do not leave any cleaner on oven walls or floor longer than one hour.

- Be sure to thoroughly rinse off oven walls and floor after cleaning.
- If in doubt about using a particular cleanser, try it first on a small area of the top inside wall of the oven. If no staining or scratching occurs, the product should be safe to use.

The heating element at the top of the oven should never be cleaned with water or cleansers of any type, as this may damage the element and cause electrical hazard. Should a food substance splash onto the element, allow the element to cool, and wipe it with a dry cloth.



To Remove the Oven Floor:

The oven floor is removable for cleaning a possible spill-over. Normally, there is no need to remove the oven floor.

- Open the oven door wide.
- Insert a blunt knife blade under the front edge of the white oven floor.
- Using the knife as a lever, lift the oven floor. Then carefully remove the oven floor from the oven. Do not bend the microwave antenna in the bottom center of the oven.
- If the spillover well is full of liquid, use a baster to remove excess liquid.
- If spillover well is full of grease, allow grease to cool to a solid before cleaning.
- Lift the well straight up and guide out of the oven. Do not bend or attempt to remove the microwave antenna in the bottom of the oven.
- Replace the spillover well first, and then the oven floor.

Never pour water in the bottom of the oven. The microwave antenna is beneath the oven floor and must not become wet or bent.

Never operate the oven without the ceramic oven floor in place.

To Clean the Oven Exterior:

Use a soft sponge or cloth dampened with mild, sudsy water. **Do not use abrasive cleansers.** Occasionally wipe the exterior of the discharge vent below the door where there may be a slight build-up of cooking vapors.

The outer oven door glass may be cleaned with Novus® Plastic Polish. This polish will remove any fine scratches and will leave a protective silicone film. Novus® Plastic Polish is available from your Amana dealer.

Cleaning Agents to Avoid:

Do not use harsh abrasives, heavy-duty powders, metal pads, or any of the commercial chemical-type oven cleaners on the interior or exterior of the oven. Abrasive cleansers will scratch or dull surfaces.

To Change the Oven Light:

- Unplug the oven from the electrical outlet.
- Facing the oven back, locate the light access panel, a metal plate with one screw in the approximate center of the oven back.
- Remove the screw and lift the access panel away.
- Turn the bulb counterclockwise for removal. Be careful not to break the bulb or burn your fingers.
- Replace the bulb with a 40 watt appliance bulb. (To replace bulb, turn it clockwise.)

If the Ceramic Oven Floor Should Break:

The ceramic oven floor must be in place when operating the oven. It protects the microwave antenna components in the bottom of the oven from spills, and it supports the food. If the oven floor is accidentally broken, it must be replaced with the same type of oven floor, available from your Amana servicer.

Before Calling for Service

Be sure you have read and followed the operating instructions. Avoid unnecessary service calls for difficulties that are not the result of defective workmanship or materials. You will be charged for a servicer's travel expenses and labor, even though the product may be in warranty, if the difficulty is not caused by workmanship or material, or if that item is considered customer replaceable.

If the oven won't turn on:

- Is the oven plugged securely into the power outlet?
- Is a fuse blown or circuit breaker open?
- Is the oven on its own circuit (see page 3)?

If power won't come on:

- Did you push the **START** switch?
- Is the oven door securely closed?

If food is overcooked:

- Did you remember to turn to the correct Microwave Cookmatic Power Level?

If food is undercooked:

- Did you remember to turn to the correct Microwave Cookmatic Power Level?
- Are there other energy-consuming appliances on the same circuit as the oven (Review page 3)?
- Is the line voltage to your home lower than usual? (The power company in your area should be able to tell you if there is low voltage to your home.) If voltage is low, the oven light will often pulse from bright to dim.

If a pulsing sound is heard when cooking at lower Microwave Cookmatic Power Levels:

- This is normal. The pulsing sound is the result of the magnetron tube cycling on and off to produce the lower Microwave Cookmatic Power Level.

If the temperature probe appears not to function correctly:

- Is the probe plug securely inserted into the receptacle on the right side of the oven wall?
- Is the food you're attempting to heat already hotter than the temperature you're selecting?
- Is the food completely defrosted?

If the oven doesn't heat in the CONVECTION or COMBINATION Cooking Methods:

- Did you select the correct cooking method?
- In COMBINATION, was the **MICROWAVE COOKMATIC POWER LEVEL CONTROL** set at or near Full Power?

If another feature doesn't appear to be operating correctly:

- Have you followed the use and care instructions exactly? Review them to be sure.
- Is the oven plugged into a properly grounded and polarized outlet as described in the installation instructions (pages 2-3)? Improper installation can result in erratic operation.

If the oven light pulses dimmer, then brighter:

- Is the line voltage to your home low or lower than usual? (The power company in your area should be able to tell you if there is low voltage to your home.)

If room lights dim, or pulse dimmer, then brighter when the oven is in use:

- Is the microwave convection oven on a separate circuit? (Review page 3).

When Service is Required

Call your nearest authorized service agency. (The dealer from whom you purchased your Radarange Plus Microwave Convection Oven can give you the name of your authorized service agency.) Help them give you prompt service by providing:

1. An accurate description of the trouble.
2. Complete model, serial and manufacturing (MFG) numbers.
3. Date of purchase and installation. (We also suggest you retain your sales receipt.)

Remember, repair by an unauthorized service person that results in subsequent failure will void the warranty promise.

Amana has a large network of Authorized Service Centers in the U.S. However, if you should have a service problem that is not resolved locally,

Write: Customer Relations Department
AMANA REFRIGERATION, INC.
Amana, Iowa 52204

Or Dial: (319) 622-5511 Monday through Friday (8 a.m.-5 p.m. Central Time Zone) and ask for Customer Relations.